

CLAIMS

1. Impeller for data acquisition in a flow, comprising blades (1) and a hub (2), characterized in that it is made of a plastic material and that it is insert moulded by trapping a spindle (3) and at least one magnet (4) in its hub (2).

2. Impeller according to claim 1, characterized in that it also traps an insert (5) to house the magnet (4).

3. Impeller according to claim 2, characterized that the insert (5) and the spindle (3) are fixed to each other.

4. Impeller according to claim 3, characterized in that the insert (5) is crimped around the spindle (3).

5. Impeller according to claim 4, characterized in that the cross section (7) of the spindle (3) is reduced at the crimping (6).

6. Impeller according to any one of claims 1 to 5, characterized in that it comprises at least one pair of magnets (4) on each side of the spindle (3) that attract each other.

7. Impeller according to any one of claims 1 to 6, characterized in that the plastic material is a polyethercetone type thermoplastic resin.

5        8. Impeller according to any one of claims 1 to 7, characterized in that the magnet (4) is based on samarium cobalt.

9. Impeller according to any one of claims 1 to 8,  
10 characterized in that the spindle (3) is based on tungsten carbide.

10. Impeller according to any one of claims 2 to 9,  
characterized in that the insert (5) is based on  
15 aluminium.

11. Data acquisition instrument in a flow,  
characterized in that it comprises at least one impeller  
(11) according to any one of claims 1 to 10.

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